

REMARKS

The Office Action mailed May 4, 2007 has been carefully reviewed and the amendments and remarks submitted herein are made in response thereto.

Status of the Claims

Claims 58-74 were last examined. Claims 59 and 71 have been amended herein. Claim 61 has been canceled herein. Claim 59 has been amended to add a length limitation and claim 71 has been amended to remove a parenthetical that was inadvertently included. No new matter is added by these amendments as the claim language is fully supported by the specification and the original claims.

Rejections under 35 U.S.C. § 112 (first paragraph)

In paragraph 5, claim 59 is rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. The Examiner is of the opinion that, while the specification provides support for 20 nucleotide tags or probes that have Tms that are within plus or minus 7°C, the specification does not provide support for tags or probes of any length that have Tms that are within plus or minus 7°C. Applicants have amended claim 59 to add that the probes with Tms within plus or minus 7°C are 20 nucleotides in length. Support for this amendment may be found in Table 1. Applicants respectfully request reconsideration and withdrawal of this rejection.

Rejections of claims 58-74 under 35 U.S.C. § 112 (second paragraph)

In paragraph 6, claim 58 is rejected as allegedly being vague and indefinite. Specifically the Examiner is of the opinion the preamble of the claim and step (d) are in conflict. Applicants respectfully disagree. The probes of the array have uniform hybridization properties both within a probe set, since those probes have the same target tag,

and from probe set to probe set. For example, probes of a first probe set have uniform hybridization properties with probes of second, third, and fourth probe sets. Probes in the same probe set hybridize to the same target tag since they are of the same sequence, but they do not hybridize with the target tags corresponding to other probe sets (i.e. they do not cross-hybridize with **non-target** target tags). The characteristics of the probes according to step (d) of the claim apply to all the probes of the array and not just to probes within a single probe set.

In paragraph 7, the Examiner has rejected claim 58 over the phrase “by arrangement of at least two nucleotides” in step (e) of the claim. The Examiner would like clarification as to what is meant by the phrase. Applicants intend the phrase to require that each probe set of the array comprises a plurality of probes of the same sequence and that sequence differs from the probe sequence of the other probe sets on the array by at least two nucleotides.

In paragraph 8, the Examiner has rejected claim 61 as being unclear as to what is meant by a G+C ratio that does not vary more than 5%. Without acquiescing to the propriety of this rejection, Applicants have canceled claim 61 in order to facilitate the issuance of the remaining claims.

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request withdrawal of all outstanding rejections and early notice of allowance to that effect. Should the Examiner believe that a telephonic interview would expedite allowance of this application, he is encouraged to contact the undersigned at his convenience.

Except for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No.01-0431. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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